

In re application of Brian Hong)	Date: October 8, 2008
)	
Serial No.: 10/675,746)	Group Art Unit: 2621
)	
Filed: 09/30/2003)	Examiner: Wong, Allen
)	
For: Peripheral Viewing System for)	
a Vehicle)	
_____)	

Hon. Commissioner of Patents and Trademarks
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APPEAL BRIEF

I.

Real Party In Interest

The real parties in interest are Brian KwangShik Hong and Ran Soo Hong.

II.

Related Appeals and Interferences

None.

III.

Status of Claims

Claims 1-5 have been canceled; pending claims 6-13 were finally rejected and are subject to the appeal herein.

IV.

Status of Amendments

None.

V.

Summary of the Claimed Invention

The present invention as claimed in independent claim 6 includes a peripheral viewing system for a vehicle wherein said vehicle includes two opposing sides (on which side view mirrors 6 are mounted, P. 6, lines 4-8, Figure 1), a steering wheel positioned within a passenger compartment (See Figure 5; P.6, lines 16-18) and a rear (see Figure 6), the viewing system comprising a pair of cameras 1, one of said cameras mounted on one of said sides of the vehicle, another of said cameras mounted on another of said sides of the vehicle (P.6, lines 5-8); a pair of video displays 5,7 mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each video display in selective communication with a designated one of said cameras (P.6, lines 13-19; P.7, lines 1-4); a microprocessor means (i.e., a computer 10) in communication with each of said cameras and said displays for continuously processing images received from each of said cameras and for continuously transmitting said images to each of said displays. (P. 6, lines 13-16). Claim 7 further includes a third camera 3 mounted on

the rear of said vehicle, said third camera connected to said microprocessor means (P.6, lines 9-14); a third video display 9 mounted within the vehicle passenger compartment, said third video display in selective communication with said third camera via said microprocessor means for continuously depicting images behind said vehicle. (P. 7, lines 1-4).

Claim 8, which depends from claim 7, adds a warning means for alerting a driver of an approaching vehicle. [the warning means is a phototransistor 2 mounted on each side of said vehicle, adjacent the rear thereof, each of said phototransistors electrically connected to said microprocessor means 10; an audible alarm means 10, 4 electrically connected to said microprocessor means for audibly alerting a driver if said phototransistors detect a trailing vehicle within a predetermined range of said vehicle. (P.7, lines 8-14)]. Claim 9 specifically defines the warning means as a phototransistor 2 mounted on each side of said vehicle, adjacent the rear thereof, each of said phototransistors electrically connected to said microprocessor means 10; an audible alarm means 10,4 electrically connected to said microprocessor means for audibly alerting a driver if said phototransistors detect a trailing vehicle within a predetermined range of said vehicle (P.7, lines 8-14).

Claim 10 depends from claim 9 and further provides that the vehicle

includes a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle. (P. 7, lines 15-19).

Claim 11 defines each of the cameras as being encased within a contoured, aerodynamic housing 33 to minimize wind drag. (P.6, lines 8-9). Claim 12 provides that one of said displays is positioned immediately adjacent a first side of the steering wheel and another of said displays is positioned immediately adjacent an opposing side of the steering wheel. (P.6, lines 16-19). Claim 13, which depends from claim 12, defines the third camera 3 as being immediately adjacent a top edge of a rear window on the vehicle for replacing a conventional rear view mirror 41. (P.6, lines 9-11).

VI.

Grounds of Rejection to be Reviewed on Appeal

Whether claims 6-8 are patentable under 35 U.S.C. 102(b) over EP 1 065 642 A2 on behalf of Shimizu and whether claims 9-13 are patentable under 35 U.S.C. 103(a) over EP 1 065 642 A2 on behalf of Shimizu in view of U.S. patent 5,530,420 issued to Tsuchiya.

VII.

Argument

A. CLAIMS 6-8 ARE PATENTABLE UNDER 35 U.S.C. 102(B) OVER EP 1 065 642 A2 ON BEHALF OF SHIMIZU

In the detailed action, the examiner rejected claims 6-8 as being unpatentable under 35 U.S.C. 102(b) over EP 1 065 642 A2 on behalf of Shimizu. For the following reasons, the pending claims are patentable in light of the cited reference.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In the detailed action, the examiner states that Shimizu discloses a pair of video displays mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each video display in selective communication with a designated one of said cameras(fig. 12, Shimizu discloses there are a pair of video displays like fig. 12(2)..."

Contrary to the examiner's assertions, the reference does not disclose a pair of displays but instead a single segmented display for depicting images from the respective cameras. The claimed invention combines the convenience of camera monitoring with the comfort and familiarity of side view mirrors allowing a driver to observe trailing vehicles by glancing at the same locations as one would if driving a vehicle with conventional mirrors. The reference of Shimizu provides no such advantage; instead, a driver wishing to view images behind the vehicle would likely first impulsively glance toward each side of the vehicle and then to the single, segmented display, at which time it may be too late to avoid a collision. Neither Shimizu, nor any other reference of record, discloses or suggests a pair of displays, each in selective communication with a designated camera.

Not only is the claimed invention not anticipated by Shimizu, it is not obvious in light of its teachings either. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). The device of Shimizu teaches away from multiple displays by disclosing a segmented screen for simultaneously depicting camera images. The multiple display and camera assembly of the present invention is not only a patentable feature, but is critical to

its function as a viewing system for a vehicle driver. When operating a motor vehicle, a driver must continuously monitor both sides and the rear of the vehicle. The device of Shimizu is not designed to replace conventional rear and side view mirrors. The use of segmented screens for monitoring the periphery of a moving vehicle would be distracting, confusing and impractical. The design of the present invention allows the rear of the vehicle to be monitored as if conventional rearview mirrors were being used. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The prior art is devoid of any suggestion or teaching of using multiple cameras each having a designated display in combination with a vehicle as claimed. "It is perfectly well settled that a new combination of elements, old in themselves, but which produce a new and useful result, entitles the inventor to the protection of a patent." *Expanded Metal v. Bradford*, 214 U.S. 366 (1909).

Regarding claim 8, the examiner avers that "Shimizu discloses further comprising a warning means for alerting a driver of an approaching vehicle(col. 43, ln. 32-38 and col. 44, ln. 18-22. The pertinent feature of Shimizu pertains to a device for detecting the presence of an obstructive objective, not a means for

alerting a driver of an approaching vehicle, as claimed.

B. CLAIMS 9-13 ARE PATENTABLE UNDER 35 U.S.C. 103(A) OVER EP 1 065 642 A2 ON BEHALF OF SHIMIZU IN VIEW OF U.S. PATENT 5,530,420 ISSUED TO TSUCHIYA

The examiner rejected claims 9-13 based upon the above-described patent to Shimizu, in light of U.S. patent 5,530,420 issued to Tsuchiya. For the foregoing reasons, the combined references do not remotely disclose or suggest the claimed features.

To establish a prima facie case of obviousness, the examiner must establish, inter alia, that the references *teach or suggest* all claim limitations. M.P.E.P. § 2143.03. (Emphasis added). In applying 35 U.S.C. 103, the following factors should be considered:

1. The claimed invention must be considered as a whole;
2. The references must be considered as a whole and must suggest the *desirability* and thus the obviousness of making the combination;
3. The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention, and;
4. Reasonable expectation of success is the standard with which obviousness is determined. M.P.E.P. § 2141, citing *Hodosh v. Block Drug Co., Inc.*, 786 F.2d

1136, 1143 (Fed. Cir. 1986).

A statement that modifications of the prior art were well within the ordinary skill of the art because the references cited teach that all of the features are individually known does not establish a prima facie case of obviousness *without some objective reason to combine the teachings of the references*. (Emphasis added). M.P.E.P. § 2143.01, citing *Ex Parte Levengood*, 28 U.S.P.Q. 2d 1300 (B.P.A.I. 1993). The fact that the prior art could be modified in a manner suggested by the examiner did not make modification obvious unless prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260(Fed. Cir. 1992).

The initial burden is on the examiner to provide some suggestion of the desirability of making a claimed combination. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985).

Pertaining to claim 9, the examiner admits that Shimizu does not include the claimed features and then states that Tsuchiya discloses "a vehicle detection means

for alerting a driver of an approaching vehicle(fig. 1, element 100 is a vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle...)”

The device of Tsuchiya includes a construction detection means for calculating positions of nearby objects using triangulation. The calculated distance is depicted on a display. The device in no way discloses or suggests a warning system for alerting a driver of an approaching vehicle, particularly in combination with the claimed peripheral viewing system as set forth in the intervening claims. The examiner cites the speed sensor 4 of Tsuchiya et al. though the claimed invention includes no such feature. The examiner also avers that the reference includes a photosensor but the disclosure mentions no such feature. Furthermore, applicant did not claim a “speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle;” conversely, the applicant claimed a *phototransistor mounted on each side of said vehicle, adjacent the rear thereof, each of said phototransistors electrically connected to said microprocessor means; an audible alarm means electrically connected to said microprocessor means for audibly alerting a driver if said phototransistors detect a trailing vehicle within a predetermined range of said vehicle* (See claim 9). Such feature is neither

disclosed nor remotely suggested by any of the cited references. The examiner merely concludes that Tsuchiya discloses a photosensor(it does not) and, therefore, its combination with any other elements to achieve any other purpose is obvious, which is clearly impermissible according to the above-cited jurisprudence. The examiner has not presented a convincing line of reasoning as to why the applicant could readily combine a construction detection means for calculating positions of nearby objects using triangulation with a parking assisting device to form the peripheral viewing system according to the claimed invention. The examiner merely concludes that, because some of the claimed elements exist separately, their combination is obvious, even where the references do not include all claimed features. The only motivation or suggestion offered by the examiner is that **some** of the claimed subject matter separately exists elsewhere.

Both the Federal Circuit and many lower courts have frequently warned against the use of such hindsight in determining obviousness. An “invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.” *Interconnect Planning Corp. V. Feil*, 774 F. 2d. 1132, 1138 (Fed. Cir. 1985).

“It is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed

invention is rendered obvious....This court has previously stated that ‘one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.’” *In re Fritch*, 972 F. 2d 1260 (Fed. Cir. 1992).

“Decomposing an invention into its constituent elements, finding each element in the prior art, and then claiming that it is easy to reassemble these elements into the invention, is a forbidden *ex post* analysis.” *In Re Mahurkar Patent Litigation*, 831 F. Supp. 1354 (N.D. Ill. 1993), *affirmed*, 71 F. 3d 1573 (Fed. Cir. 1995).

In *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, (Fed.Cir.1985), the court provided that:

“35 U.S.C. § 103 requires that obviousness be determined with respect to the invention as a whole. This is essential for combination inventions, for generally all combinations are of known elements. When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. There must be ‘something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.’”

“Critical to the analysis is an understanding of the particular results achieved by the new combination. The claims here at issue are directed to a combination of known components of telephone systems in an admittedly new way to achieve a new total system. Neither the district court in its opinion, nor the defendants, identified any suggestion in the prior art that the components be combined as they were by Feil or that such combination could achieve the advantages of the Feil system.”

The examiner has merely broken down the claimed invention into its individual components, and purportedly located each element in a reference. And, the examiner concludes that, because the elements exist, reassembling them to form the claimed monitoring system is obvious. Such hindsight reconstruction is clearly improper and is forbidden by the mandates set forth by the Federal Circuit.

Claim 10 further includes *a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle*. In rejecting the claim, the examiner states:

“Regarding claim 10, Shimizu does not specifically disclose wherein said vehicle includes a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarms means

if said trailing vehicle is within the predetermined range of said vehicle.

However, Tsuchiya teaches the use of a vehicle detection means for alerting a driver of an approaching vehicle (fig.1, element 100 is a vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle, wherein sensors are utilized for determining if the approaching vehicle is at a safe distance or range). Since Tsuchiya provides the warning means, it would have been obvious to one of ordinary skill in the art to apply audible alarm means for performing the task of alarming or providing a sound warning the driver of approaching vehicles so as to avoid potentially colliding with the approaching vehicles and preventing accidents.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Shimizu and Tsuchiya, as a whole, for providing the driver pertinent information about approaching vehicles so as to drive at a safe distance and to prevent the occurrence of accidents (Tsuchiya col. 1 , In.47-54).”

Again, the examiner has provided no explanation whatsoever as to how the references suggest the claimed combination of elements; the examiner vaguely refers to some elements within the references and merely catalogues the elements

by simply averring that they exist elsewhere. Such revisionist analysis is particularly improper considering that many of the claimed features are not contained within either reference. The examiner completely ignored the claimed feature **“a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle.”** And, such feature is not disclosed or suggested in any references of record herein.

Claim 11 delineates that each of said cameras is encased within a contoured, aerodynamic housing to minimize wind drag while claim 12 provides that one of said displays is positioned immediately adjacent a first side of the steering wheel and another of said displays is positioned immediately adjacent an opposing side of the steering wheel.

In rejecting the claims, the examiner provides the following comments:

“Regarding claim 11, Shimizu does not specifically disclose wherein each of said cameras is encased within a contoured, aerodynamic housing to minimize wind drag. However, it would have been obvious to one of ordinary skill in the art to encase cameras in any form as needed or suited by design choice since encasing cameras into aerodynamic, protective cases is a well known practice for shielding cameras and providing sensible forms of

concealing cameras so as to not slow down the speed of the vehicle...

Regarding claim 12, Shimizu does not specifically disclose wherein one of said displays is positioned immediately adjacent a first side of the steering wheel and another of said displays is positioned immediately adjacent an opposing side of the steering wheel. However, it would have been obvious to one of ordinary skill in the art to place the displays in any location on Shimizu's vehicle as desired by the user or creator for conveniently viewing the displayed information so as to drive carefully with all of the necessary, precise video information of the perspectives obtained by the cameras in order to prevent accidents."

The examiner has taken official notice that such features were obvious when a reference in support of such assertion should have been cited. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art, are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute." (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6

(CCPA 1961)). It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21. See also *In re Grose*, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979). It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697. See MPEP §2144.03.

The examiner has failed to show how the claimed features enumerated above are recognized equivalents in the field of vehicle monitoring systems. For example, claim 12 pertaining to the positioning of the displays is not merely an arbitrary choice obvious to one skilled in the art, but is instead a creative design so that the displays replace and emulate side view mirrors. Furthermore, contrary to the holding of *Zurko*, the examiner has relied solely on common knowledge as the principal (and only) evidence in rejecting claims 11 and 12. Accordingly, pursuant to M.P.E.P. §2144.03, applicant hereby demands that the examiner provide

documentary evidence in support of his assertion of Official Notice. Furthermore, the device of Shimizu actually teaches away from the claimed invention by disclosing a single, segmented display for depicting images from all cameras on a single screen. Such design could not remotely teach or suggest positioning multiple displays according to the claimed invention to emulate conventional mirrors. See *W.L. Gore & Associates, Inc.*, supra.

Claim 13 provides that said third camera is immediately adjacent a top edge of a rear window on the vehicle for replacing a conventional rear view mirror. In rejecting the claim, the examiner asserts that Shimizu discloses a third camera placed in the rear of the vehicle (fig.1A-B, element 14 is the third camera). However, claim 13 depends from claim 12, which sequentially depends from all preceding claims, and is therefore patentable for the reasons stated above.

C. CONCLUSION

In conclusion, none of the references cited herein disclose a vehicle monitoring system that overcomes the disadvantages associated with conventional rear view mirrors according to the claimed invention. In rejecting the claims, the examiner has improperly applied references by ignoring the claimed interrelation of parts where the claimed interrelation is not disclosed. The examiner has also repeatedly asserted that claimed combinations are obvious because **some**

components of the claimed invention previously existed, without showing any rationale or reasoning as to why combining the existing components is obvious. As such, the examiner's reasoning is clearly employing the use of impermissible hindsight construction. Furthermore, the examiner failed to address numerous claim limitations (particularly the turn signal switch activation means) which are clearly undisclosed by the cited references and by simply asserting official notice without citing any documentary evidence in support of such assertion. For the foregoing reasons, applicant respectfully avers that claims 6-13 are patentable in light of the references of record herein.

VIII.

Claims Appendix

Claim 6. A peripheral viewing system for a vehicle wherein said vehicle includes two opposing sides, a steering wheel positioned within a passenger compartment and a rear, the viewing system comprising:

a pair of cameras, one of said cameras mounted on one of said sides of the vehicle, another of said cameras mounted on another of said sides of the vehicle;

a pair of video displays mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each video display in selective communication with a designated one of said cameras;

a microprocessor means in communication with each of said cameras and said displays for continuously processing images received from each of said cameras and for continuously transmitting said images to each of said displays.

Claim 7. The peripheral viewing system according to claim 6 further comprising:

a third camera mounted on the rear of said vehicle, said third camera connected to said microprocessor means;

a third video display mounted within the vehicle passenger compartment, said third video display in selective communication with said third camera via said

microprocessor means for continuously depicting images behind said vehicle.

Claim 8. The peripheral viewing system according to claim 7 further comprising a warning means for alerting a driver of an approaching vehicle.

Claim 9. The peripheral viewing system according to claim 8 wherein said warning means comprises:

a phototransistor mounted on each side of said vehicle, adjacent the rear thereof, each of said phototransistors electrically connected to said microprocessor means;

an audible alarm means electrically connected to said microprocessor means for audibly alerting a driver if said phototransistors detect a trailing vehicle within a predetermined range of said vehicle.

Claim 10. The system according to claim 9 further wherein said vehicle includes a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle.

Claim 11. The system according to claim 10 wherein each of said cameras is encased within a contoured, aerodynamic housing to minimize wind drag.

Claim 12. The system according to claim 11 wherein one of said displays is positioned immediately adjacent a first side of the steering wheel and another of

said displays is positioned immediately adjacent an opposing side of the steering wheel.

Claim 13. The system according to claim 12 wherein said third camera is immediately adjacent a top edge of a rear window on the vehicle for replacing a conventional rear view mirror.

IX.

Evidence Appendix

None.

X.

Related Proceedings Appendix

None.

Respectfully submitted,

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